IN THE DRAWINGS

The attached sheet of drawings includes changes to Fig. 12. This sheet, which includes Figs. 12 and 13, replaces the original sheet including Figs. 12 and 13.

Attachment: Replacement Sheet (1 sheet)

REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1 and 4-20 are currently pending, with Claims 14-20 being withdrawn as directed to non-elected inventions. Claims 2, 3, and 21 have been canceled without prejudice; and Claims 1, 4, and 9 have been amended by the present amendment. The changes to the claims are supported by the originally filed specification and do not add new matter.

In the outstanding Office Action, the Examiner indicated that the Information Disclosure Statements filed July 20, 2004, and August 30, 2005, fail to comply with 37 C.F.R. § 1.98(a)(c) as not containing a concise explanation of the relevancy of the references; Figure 12 was objected to as containing informal, handwritten matter; the title of the invention was objected to as being nondescriptive of the claimed invention; Claims 1 and 21 were rejected under 35 U.S.C. § 112, second paragraph, regarding various limitations; and Claims 1-13 and 21 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,402,791 to Saitoh et al. (hereinafter "the '791 patent").

Applicants note that M.P.E.P. § 609.4(a) section 3 states that "where the information listed is not in the English language, but was cited in a search report or other action by a foreign patent office in a counterpart foreign application, the requirements for a concise explanation of relevance can be satisfied by submitting an English-language version of the search report or action which indicates the degree of relevance found by the foreign office. This may be an explanation of which portion of the reference is particularly relevant, to which claims it applies, or merely an "X", "Y", or "A" indication on a search report. Thus, regarding the Information Disclosure Statement filed July 20, 2004, Applicants note that an English language search report was submitted and that the search report indicated that the

reference JP 61-075700 has a relevance category "A." Thus, since the M.P.E.P. section cited above states that this designation is sufficient as a statement of relevancy, Applicants respectfully request that an acknowledged copy of the IDS filed July 20, 2004 be sent to Applicants. Further, regarding the IDS filed August 30, 2005, Applicants note that the IDS was submitted with an English translation of a Japanese Office Action in which the references were cited. The references that are at issue are references 1, 2, 4, and 5 discussed in that Office Action. The Office Action states that "the present invention as claimed in Claims 1-12 and the invention disclosed in Reference 1...are different in the following respects and identical in other respects." In particular, on page 2 of the Office Action, the Examiner states that Reference 2 discloses a conductive material that is covered with a nonconductive material, and that Reference 2 discloses that a piezoelectric vibrator and a conductive substrate are heated to be electrically joined to each other. Further, the Examiner also states how the disclosures of References 4 and 5 relate to the claimed subject matter, which is disclosed at the top of page 2. Page 3 of the Office Action also discusses how References 1-5 relate to Claims 1-12. As discussed above, the M.P.E.P section cited above states that a sufficient statement of relevancy is one in which the foreign search report Office Action indicates "to which claims" the reference applies. In this regard, Applicants respectfully submit that the Japanese Office Action submitted with the IDS discloses that the references apply to Claims 1-12. Accordingly, for the reasons stated above, Applicants respectfully request that an acknowledged copy of the IDS filed August 30, 2005, be sent to Applicants. Further, Applicants respectfully disagree with the Examiner's comments that the Japanese Office Action discloses only the method of fabricating Applicants' invention, "which is not relevant to the invention currently claimed by the instant application." First, Applicants note that the present application includes Claims 14-20, which are directed to a method of fabricating an ultrasonic probe. Moreover, Applicants respectfully submit that

references related to a method of manufacturing an ultrasonic probe are also relevant to claims directed to the probe itself, since the reference also discloses the final product made by the method of manufacturing the product.

Applicants respectfully submit that the objections to the drawings were rendered moot by the present submission of a formal copy of Figure 12.

Applicants respectfully submit that the objection to the Title has been rendered moot by the present amendment to the Title. The Title has been amended to be more descriptive of the claimed invention. Accordingly, the objection to the Title is believed to have been overcome.

Applicants respectfully submit that the rejection of Claim 1 under 35 U.S.C. § 112 is rendered moot by the present amendment to Claim 1. Claim 1 has been amended to delete the phrase rejected by the outstanding Office Action. Moreover, Applicants respectfully submit that the rejection of Claim 21 under 35 U.S.C. § 112 is rendered moot by the present cancellation of that claim.

Amended Claim 1 is directed to an ultrasonic probe, comprising: (1) a piezoelectric transducer for sending and receiving an ultrasonic wave; and (2) a conductive substrate for applying current to the piezoelectric transducer. Further, Claim 1 clarifies that the conductive substrate is arranged oppositely to a side face of the piezoelectric transducer and has an end portion that is arranged outside of the side face of the piezoelectric transducer. Further, Claim 1 clarifies that a conductive material is arranged in a corner portion formed by the piezoelectric transducer and the conductive substrate, the conductive substrate electrically connecting the piezoelectric transducer to the conductive substrate. Further, Claim 1 has been amended to incorporate the limitations recited in Claim 2. In particular, amended Claim 1 clarifies that the conductive substrate has a signal wiring and an earth wiring, and a nonconductive material insulates a jointed portion of the piezoelectric transducer with the

signal wiring from a jointed portion of the piezoelectric transducer with the earth wiring. Accordingly, the changes to Claim 1 are supported by the originally filed specification and do not add new matter.

The '791 patent is directed to a piezoelectric single crystal having a large electromechanical coupling coefficient. As shown in Figure 1, the '791 patent discloses a printed wiring board 9 connected to a lamination layer, such as a piezoelectric member 1, by bending the end portion of the printed wiring board 9 and tucking it into the lamination layer. Applicants note that in this configuration, the printed wiring board 9 would be bent at right angles and would be subjected to great stress. Further, as shown in Figure 1, the '791 patent discloses that a first electrode 4 is formed so as to cover the ultrasonic transmitting/receiving surface 3, one side surface, and a portion of the surface opposite to the transmitting/receiving surface 3 of the piezoelectric element 1. Further, as shown in Figure 1, the '791 patent discloses that a second electrode 5 is formed on the surface opposite to the ultrasonic transmitting/receiving surface 3 of each piezoelectric element 1 so as to be spaced apart from the first electrode 4 with a desired distance between them.[1] Further, as illustrated in Figure 1, the '791 patent discloses that a ground electrode plate 8 is connected to the first electrode 4, while a flexible printed wiring board 9 is connected to the second electrode 5 by soldering.[2] Thus, Figure 1 of the '791 patent clearly discloses a signal wiring connected to a first electrode, and an earth wiring connected to a second electrode **on opposite sides** of the ultrasonic probe.

However, Applicants respectfully submit that the '791 patent fails to disclose an ultrasonic probe having a conductive substrate for applying current to a piezoelectric transducer, wherein the conductive substrate has a signal wiring and an earth wiring, and a

[1] See '791 patent, column 8, lines 55-63.
[2] See '791 patent, column 9, lines 1-4.

nonconductive material insulates the jointed portion of the piezoelectric transducer with the signal wiring from a jointed portion of the piezoelectric transducer with the earth wiring, as recited in amended Claim 1. The '791 patent clearly discloses that the signal wiring and the earth wiring are located on opposite sides and are connected to different substrates, and that there is no need for a nonconductive material to insulate jointed portions, as recited in amended Claim 1.

In this regard, Applicants note that page 4 of the outstanding Office Action states that, although the '791 patent fails to disclose a nonconductive material, "this element must be inherently present in the reference invention as it would not be operable without such insulating means." Applicants respectfully traverse the Examiner's assertion of inherency with respect to this limitation. The Examiner has not provided any evidence that the claimed nonconductive material is necessarily present in the ultrasonic probe of the '791 patent. Moreover, the '791 patent clearly discloses that there is no need for the claimed nonconductive material because the '791 patent includes separate wirings on opposite sides of the ultrasonic probe, that do not need to be insulated from one another. Further, Applicants note that the embodiment shown in the '791 patent is clearly operable and does not require the nonconductive material recited in Claim 1.

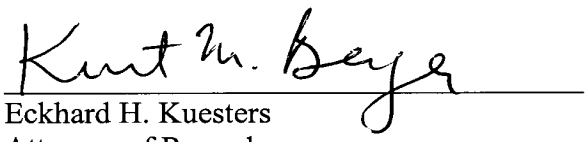
For the reasons stated above, Applicants respectfully submit that the rejection of Claim 1 (and dependent Claims 4-13) as anticipated by the '791 patent is rendered moot by the present amendment to Claim 1.

Thus, it is respectfully submitted that independent Claim 1 (and dependent Claims 4-13) patentably define over the '791 patent.

Consequently, in view of the present amendment and in light of the above discussion, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Eckhard H. Kuesters
Attorney of Record
Registration No. 28,870

Kurt M. Berger, Ph.D.
Registration No. 51,461

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413-2220
(OSMMN 06/04)

I:\ATTY\KMB\249'S\249298US\249298US-AM.DOC